

Remarks/Arguments:

Applicants thank the Examiner and his supervisor for the courtesy of the April 1, 2008 telephone interview. During the interview, the Examiner explained his interpretation of the Davidson reference.

Claim 7 is herein amended. Support for the amended claim is provided at least at page 14, lines 15-20 of the original specification. No new matter is added.

Claim Rejections Under 35 U.S.C. §102 and §103

Claims 7-14 stand rejected under 35 U.S.C. §103 as unpatentable over U.S. Patent No. 5,498,302 (Davidson). Applicants traverse this rejection.

"To establish a *prima facie* case of obviousness, ... the prior art reference (or references when combined) must teach or suggest all the claim limitations." M.P.E.P. §2143. Additionally, as set forth by the Supreme Court in KSR Int'l Co. v. Teleflex, Inc., No. 04-1350 (U.S. Apr. 30, 2007), it is necessary to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the prior art elements in the manner claimed.

Independent claim 7 recites a "A wear-resistant titanium alloy orthopedic device, wherein said device has a core hardness of at least 28 HRC and a hardened outer region, having at least two layers including a TiO₂-TiO layer and an oxygen-rich layer, which provides substantially increased near surface hardness at least 0.0005 inches beneath a surface of the device."

Applicants respectfully submit that Davidson teaches away from the claimed invention. At column 2, lines 61-63, Davidson explains that "[o]xygen diffusion hardening of titanium alloys promotes an undesirable, weaker alpha case on the surface." Davidson teaches adding a solute to the material which to avoid oxidizing of the titanium. Davidson explains at column 6, lines 17-23, that "[i]n the case of titanium or Ti-Nb alloys, tantalum may be added as a solute, because tantalum is more reactive with oxygen (lower free energy of formation) than either titanium or niobium. Thus, it is possible to internally oxidize the alloy without oxidizing niobium or titanium if the concentration of oxygen (partial pressure of oxygen) is less than that required to form niobium or titanium oxides." (emphasis added).

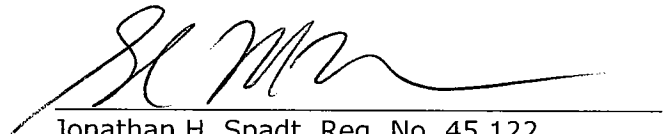
Applicants respectfully submit that Davidson teaches away from the claimed wear-resistant titanium alloy orthopedic device with a hardened outer region having at least two layers including a TiO₂-TiO layer and an oxygen-rich layer.

It is respectfully submitted that independent claim 7 is in condition for allowance. Claims 8-14 each depend from claim 7 and therefore each should each be allowed for at least the reasons set forth above.

It is respectfully submitted that each of the pending claims is in condition for allowance. Early reconsideration and allowance of each of the pending claims are respectfully requested.

If the Examiner believes an interview, either personal or telephonic, will advance the prosecution of this matter, it is respectfully requested that the Examiner get in contact with the undersigned to arrange the same.

Respectfully submitted,



Jonathan H. Spadt, Reg. No. 45,122
Glenn M. Massina, Reg. No. 40,081
Attorneys for Applicants

JHS/GMM/mgm

Dated: April 16, 2008

☒ P.O. Box 980
Valley Forge, PA 19482
(610) 407-0700

☐ P.O. Box 1596
Wilmington, DE 19899
(302) 778-2500

The Director is hereby authorized to charge or credit Deposit Account No. **18-0350** for any additional fees, or any underpayment or credit for overpayment in connection herewith.